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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
WU, JINGGE	

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/955,505	SEZER ET AL.	
	Examiner	Art Unit	
	Jingge Wu	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 September 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/16/2001, 3/4/20*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 1-3 and 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6580834 to Li et al.

As to claim 1, Li discloses a method of producing a (run, level) encoded picture from an original picture, said method comprising:

producing respective sets of transform coefficients for blocks of pixels (8X8) in the original picture (col. 4 lines 43-46, col. Col. 9 lines 23-27),

quantizing transform coefficients in the respective sets of transform coefficients to produce respective sets of quantization indices for the blocks of pixels, wherein quantization indices for at least some of the blocks are produced by using a quantization step size that is not uniform within said at least some of the blocks (col. 9 lines 34-37);

selecting largest magnitude quantization indices from the respective sets of quantization indices to produce respective sets of quantization indices having non-zero

levels for the blocks of pixels (fig. 11, 1113, col. 9 lines 37-42, col. 13 lines 31-44); and

(run, level) encoding quantization indices from the respective sets of quantization indices to produce the (run, level) encoded picture (fig. 11 and 12, col. 9 lines 43-col. 10 line 16).

As to claim 2, LI further discloses the sets of transform coefficients for the blocks of pixels are produced by computing discrete cosine transforms. (fig. 11, 1105, col. 9 lines 4-14)

As to claim 3, Li further discloses the method as claimed in claim 1, wherein the largest magnitude quantization indices are selected from the respective sets of quantization indices by finding up to a selected number of largest magnitude non-zero quantization indices from each of the respective sets of quantization indices (fig. 11, 1113, col. 9 lines 37-42, col. 13 lines 31-44).

As to claims 11-13, the claims are the corresponding computer claims to calims 1-3. the discussions are addressed with regard to claims 1-3.

3. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6771703 to Oguz et al.

As to claim 7, Oguz discloses a method of scaling non-scalable MPEG-2 coded video to produce reduced-bandwidth, reduced-quality MPEG-Z coded video (abstract), the non-scalable MPEG-Z coded video including a set of non-zero AC discrete cosine transform (DCT) coefficients for 8x8blocks of the non-scalable MPEG-Z coded video (, said method comprising removing non-zero AC DCT coefficients from the non-scalable MPEG-2 coded video so that the reduced-quality MPEG-Z coded video includes no more than a selected number of largest magnitude quantization indices (fig. 15, col. 19 lines 17-25) for the non-zero AC DCT coefficients for each 8x8 block (fig. 15, col. 5 lines 11-55, col. 19 lines 17-64).

As to claim 8, Oguz further discloses the method as claimed in claim 7, which includes, for each of the 8 x 8 blocks of the non-scalable MPEG-Z video:

a) parsing and copying a differential DC coefficient variable-length code (VLC) (fig. 15, step 261, col. 19, lines 26-30);

b) parsing and decoding (run, level) event variable-length codes (VLCs) up to an end-of-block marker to identify a respective set of non-zero quantization indices (fig. 15, 262, col. 19 lines 30-34);

c) finding up to the selected number of non-zero quantization indices having the largest level magnitudes in the respective set of non-zero quantization indices to identify a respective set of largest magnitude non-zero quantization indices (fig. 15, 264, col. 19 lines 36-40, note that the first one coefficient is largest one because of descending ordering); and

d) applying (run, level) event formation and entropy encoding to the set of largest magnitude non-zero quantization indices (fig. 15, 266, col. 19, lines 40—43).

As to claim 9, Oguz further discloses sorting indices in the respective set of non-zero quantization indices in order to find up to the selected number of non-zero quantization indices having the largest level magnitudes in the respective set of non-zero quantization indices (fig. 15, 264, col. 19 lines 36-40)

As to claim 10, Oguz further discloses the method as claimed in claim 8, wherein the application of (run, level) event formation and entropy encoding to the set of largest magnitude non-zero quantization indices includes (run, level) encoding of quntization indices that are not largest magnitude quatization indices in order to (run, level) encode the set largest magnitude quantization indices with few bits than would otherwise be requires for (run, level) encoding of the set of largest magnitude quantization indices (abstract).

As to claims 17-20, the claims are the corresponding computer claims to claims 7-10 respectively. The discussion are addressed with regard to claims 7-10.

As to claim 11, Oguz discloses a digital computer programmed for producing a (run, level) encoded picture from an original picture, wherein the digital computer comprises at least one processor programmed for:

producing respective sets of transform coefficients for blocks of pixels in the original picture (col. 16, lines 16-45, note that DCT transform is block by block transform);

quantizing transform coefficients in the respective sets of transform coefficients to produce respective sets of quantization indices for the blocks of pixels, wherein quantization indices for at least some of the blocks are produced by using a quantization step size that is not uniform within said at least some of the blocks (fig. 22, 366, col. 30 lines 29-45);

selecting largest magnitude quantization indices from the respective sets of quantization indices to produce respective sets of quantization indices having non-zero levels for the blocks of pixels (fig. 15, 264, col. 19 lines 36-64); and

(run, level) encoding quantization indices from the respective sets of quantization indices to produce the (run, level) encoded picture (fig. 15, 266, col. 19, lines 40—43).

As to claim 12, Oguz further discloses the digital computer as claimed in claim wherein the processor is programmed for producing the respective sets of transform coefficients for the blocks of pixels by computing discrete cosine transforms (col. 16, lines 16-45).

As to claim 13, Oguz further discloses wherein the processor is

programmed for selecting the largest magnitude quantization indices from the respective sets of quantization indices by finding up to a selected number of largest magnitude non-zero quantization indices from each of the respective sets of quantization indices (fig. 15, 264, col. 19 lines 36-40, note that the first one coefficient is largest one because of descending ordering).

As to claim 14, Oguz further discloses wherein the processor is programmed for selecting the largest magnitude quantization indices from the respective sets of quantization indices by sorting up to a selected number of non-zero quantization indices from each of the respective sets of quantization indices (fig. 15, 264, col. 19 lines 36-64).

As to claim 15, Oguz further discloses wherein the original picture is a frame of motion picture video (col. 7 lines 37-51, col. 14, lines 32-33), the processor is programmed for producing and quantizing the respective sets of transform coefficients for the blocks of pixels during MPEG encoding of the original picture to produce (run, level) coded MPEG video (col. 16, line 36-col. 17 line 20), and the processor is programmed for selecting the largest magnitude quantization indices from the respective sets of quantization indices during transcoding of the (run, level) coded MPEG video to produce reduced-bandwidth, reduced-quality MPEG encoded video (col. 19 lines 36-64).

As to claim 16, these elements have been addressed with regard to claim 10 above.

As to claims 1-6, the claims are the corresponding method claims to claims 11-16, respectively. The discussion are addressed with regard to claims 11-16.

Contact Information

4. Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.

The Working Group Fax number is (703) 872-9314.

Jingge Wu

Primary Patent Examiner